Section	From	To	Justification
TOC	POIF	PO&I	Accuracy. POIF is not a real entity.
TOC	POIF CM Matrix	Payload Operations Baseline Definition	Defines the PL Ops BL by updating the existing POIF CM Matrix.
1.0 Scope first Paragraph	The Marshall Space Flight Center (MSFC) International Space Station (ISS) Payload Operations and Integration Configuration Management Plan (CMP) defines requirements, responsibilities and procedures for the Configuration Management (CM) System which will be applied to ISS Payload Operations and Integration configuration items throughout the distributed Payload Operations System.	The Marshall Space Flight Center (MSFC) International Space Station (ISS) Payload Operations and Integration Configuration Management Plan (CMP) defines requirements, responsibilities and procedures for the Configuration Management (CM) System applied to MSFC ISS Payload Operations and Integration configuration items identified in Appendix C. These CIs, taken as a group, define the ISS Payload Operations Baseline.	Introduces The concept of the Payload Operations Baseline. Confines the CMP to MSFC defined and controlled CIs.
1.0 Scope – 2nd Para	Payload Operations configuration items will be identified by baselining technical documentation and other Payload Operations products at progressive project milestones. The configuration baseline will progress from requirements to Payload Operations products through this baselining process. Any changes to baselines of configuration items will be controlled and verified through the CM System described in this plan.	The Flight Projects Directorate (FPD) Payload Operations Directors group (FD32) will identify items having a critical impact on ISS payload operations and designate them Payload Operations and Integration Configuration Items. FD32 shall add such items to the Payload Operations Baseline as defined in Appendix C. The impact on the Payload Operations Baseline of any changes to baselines of configuration items will be controlled and verified through the CM System described in this plan.	Removes passive voice to identify who is doing what. Establishes FD32 as the agency that defines PL Ops Baseline. Establishes relationship between CIs and PL Ops BL.
1.0 Scope	Add Paragraph 3	No changes in configuration items used in increment payload operations shall become part of the Payload Operations Baseline until approved by the Payload Operations Director (POD). Additionally, the POIC cadre, under the POD, shall provide procedures to change configuration items used in increment payload operations when in the opinion of the POD the immediate payload operations environment requires such a change. Immediate changes authorized by the POD to a CI listed in the Payload Operations Baseline defined in Appendix C, constitute the only acceptable changes to the increment Payload Operations Baseline.	

Section	From	To	Justification
1.1 Objectives	The CM system provides the Payload Operation Integration Function with a formal method to meet the following objectives: a) Identify and document the technical requirements of all Configuration Items (CI)s, Computer Software Configuration Items (CSCI) or other payload operational products. b) Control changes to these CI's technical requirements. c) Record and report CI change processing and implementation status. d) Verify change incorporation into CI's. e) Verify performance, design and configuration through design reviews and verification. f)	The CM system provides Payload Operations and Integration with a formal method to meet the following objectives for all Configuration Items (CI)s, Computer Software Configuration Items (CSCI) or other payload operational products: a) Identify and document the technical requirements b) Control changes to the technical requirements c) Record and report change processing and implementation status. d) Verify changes incorporated. e) Verify performance, design and configuration through design reviews and verification.	Makes all objectives refer to all Configuration Items (CI)s, Computer Software Configuration Items (CSCI) or other payload operational products, not just to the first objective.
1.2 Abbr. & Acronyms	Add FD30 and FD 32	FD30 Flight Projects Directorate Payload Operations and Integration Department FD32 Flight Projects Directorate Payload Operations Directors Group	
1.2 Abbr. & Acronyms	POIF Payload Operations Integration Function	POI Payload Operations Integration	POIF is not a real entity.
3.0 Org	CM provides a disciplined method for establishment, control, accounting, and verification of the POIF baseline. The CM system helps ensure that program and individual payloads technical requirements are identified and documented and accurately translated into integrated payload products. MSFC ISS Payload Operations Integration controls these products through chartered Level III Configuration Control Boards (CCBs) as shown in Figure 1. The following sections define the CM responsibilities of the MSFC ISS POIF activities.	CM provides a disciplined method for establishment, control, accounting, and verification of the Payload Operations Baseline. The CM system helps ensure that program and individual payloads operational requirements are identified and documented and accurately translated into integrated payload products. MSFC ISS Payload Operations and Integration (FD30) controls these products through chartered Level III Configuration Control Boards (CCBs) as shown in Figure 1. The following sections define the CM responsibilities of the MSFC ISS FD30 activities	This document does not define the POIF. Without such a definition, the phrase "POIF baseline" remains pretty much meaningless. The overall purpose of this entire proposed change is to delete reference to POIF and clarify what the CM Plan actually applies to (which is the newly defined Payload Operations Baseline.)

Section	From	To	Justification
3.1 POD Group	The MSFC Payload Operations Integration Function (POIF) shall address all changes to CI's through the Payload Operations Control Board (POCB), the Payload Operations Data File Control Board (PODFCB), and the NASA Payload Operations Control Board (NPOCB). Engineering Change Requests (ECRs), Space Station Change Requests (SSCRs), Change Evaluations (CEs), and action closures will be submitted to the appropriate board for disposition.	The MSFC Flight Projects Directorate Payload Operations and Integration Department shall address all changes to the Payload Operations Baseline through the Payload Operations Control Board (POCB), the Payload Operations Data File Control Board (PODFCB), the NASA Payload Operations Control Board (NPOCB), and the FD30 Offices of Primary Responsibility (OPR). Operations Change Requests (OCRs), Engineering Change Requests (ECRs), Space Station Change Requests (SSCRs), Change Evaluations (CEs), and action closures will be submitted to the appropriate authority (a control board or an OPR) for disposition.	Replaces POIF with FPD PO&I. Brings FD30 OPRs and OCRs under this plan for completeness. Introduces the term "appropriate authority" to expand control authority from "boards" only to OPR Team Leads.
3.2. Increment Operations Implement ation of CM	During increment operations, the Payload Operations Integration Center (POIC) will be delegated responsibilities by the POCB, NPOCB and PODFCB for control of POIF flight documentation. The Payload Operations Director (POD) will act as board chairperson and will process changes using the Payload Information Management System (PIMS) Operations	During increment operations, the Payload Operations Director (POD) in the Payload Operations Integration Center (POIC) will be delegated responsibilities by the POCB, NPOCB and PODFCB for control of Payload Operations Baseline. The POD will act as board chairperson and will process changes using the Payload Information Management System (PIMS) Operations	Puts the POD in charge of the Payload Operations Baseline instead of the more nebulous POIC.
3.3.g.	Assist in verifying that payload operation CIs are maintained in accordance with the released documentation during configuration audits.	Assist during configuration audits in verifying that the payload operations baseline is maintained in accordance with the released documentation.	Clarification by moving a misplaced modifier.
3.3.h.	Perform periodic CM audits to verify adequacy of the CM system	Perform periodic CM audits to verify that the CI's conform with the documentation.	Accuracy. The reason Audits verify products, not the CM system. The adequacy of CM will be evident in the conformance of the products to approved documentation.
3.5 1st Sentence	Safety and Mission Assurance (S&MA) will provide CM support as specified in the Safety and Mission Assurance Plan for each MSFC ISS Payload project.	Safety and Mission Assurance (S&MA) will provide CM support as specified in the Safety and Mission Assurance Plan for each CI defined in the MSFC ISS Payload Operations Baseline	The FD32 CM Plan cannot apply to MSFC payload projects. It should confine itself to the newly defined Payload Operations Baseline.
4.0	Payload Operations milestones shall be per the approved Payload Operations Integration Schedule available on the POIF Web page.	Payload operations milestones shall be per the approved Payload Operations Integration Schedule available on the POI Web page.	Corrects reference to POIF and corrects capitalization error.

Section	From	To	Justification
6.0	The Payload Operations CIs consist of PODF, software and execution products developed increment preparation and required to support increment operations. These CIs are defined in the Payload Operations CM Matrix in Appendix C	The Payload Operations Baseline CIs consist of PODF, software and execution products developed increment preparation and required to support increment operations. These CIs are described in the Payload Operations Baseline Matrices in Appendix C, and defined in the various volumes of the Station Program Implementation Plan (SPIP) and other ISS program documentation.	Emphasizes Payload Operations Baseline instead of the individual CIs. Correctly attributes definition of CIs.
6.1 Configuration Baselines	Institutional CM requirements are applicable to the baselined CI's that are implemented in the operations environment. However, institutional CM requirements do not apply to the implementation products developed to execute increment operations. The POD develops, approves, and maintains products to implement the CI's that support payload operations. The POD processes do not apply to the CI's.	Institutional CM requirements are applicable to the baselined CI's that comprise the Payload Operations Baseline. However, institutional CM requirements do not apply to the Payload Operations Baseline itself, which is defined to execute increment operations. The POD develops, approves, and maintains the Payload Operations Baseline. The POD processes do not apply to the CI's	Clarifies definition and role of the Payload Operations Baseline. (i.e., the Payload Operations Baseline IS the product that implements the individual CIs.
6.2	Identification numbers shall be document numbers and are controlled through the release function.	Identification numbers shall be document numbers and are controlled through the release function. For each item in Appendix C, whether or not it is actually a document, the CMO will assign "document numbers" through the release function.	Without the proposed change, this unnecessarily and undesirably restricts Payload Operations Baseline, formerly referred to as the "POIF baseline", to documents. The Payload Operations Baseline includes databases, computer systems, communications systems, and processes provided by the HOSC, the users, the Space Station Control Center, and numerous other agencies.
6.3 1st Sentence	The purpose of the release function is to ensure that project baselines and changes to those baselines are properly authorized and recorded.	The purpose of the release function is to ensure that baselines and changes to those baselines for the CI's that comprise the Payload Operations Baseline are properly authorized and recorded.	FD 32 CM Plan should not refer to "project baselines" but to the Payload Operations Baseline.
6.3 3rd Paragraph	Some documentation developed by the POIF will be submitted to International Space Station (ISS) program control boards and released by the ISS program release function. These documents shall have proper program document identification and be developed in accordance with…	Documentation developed by POI and submitted to International Space Station (ISS) program control boards will be released by the ISS program release function. These documents shall be developed in accordance with…	Delete reference to POIF and clarify roles and authority with respect to Program-level documentation.

Section	From	To	Justification
8.0 1st Sentence	Configuration control is the systematic definition, evaluation, coordination, and disposition of each proposed change, and the implementation of each approved change in the project configuration.	Configuration control is the systematic definition, evaluation, coordination, and disposition of each proposed change, and the implementation of each approved change in Payload Operations Baseline	Clarifies control of the Payload Operations Baseline rather than a generic "project configuration" that could fall outside the scope of FD32 responsibilities.
8.0 1st para	Payload Operations CI's	Payload Operations Baseline CI's	Accuracy and clarity
8.0 2nd Paragraph	Documents that define Payload Operations Integration requirements and design, shall become part of the formal project baseline by the POIF CM matrix. Other types of project documentation shall be controlled as defined by the POIF management. Non real-time increment operation changes shall be submitted on an ECR form. Forms and instructions are available on the POIF Web page. Document procedures are defined in the JSC Standard 50010. For Realtime, changes to implementation products shall be submitted on a PIMS Operations Change Request (OCR) after the ECR cut-off date(s) established by the Increment Lead POD.	Documents that define Payload Operations Integration requirements and design, shall become part of the formal Payload Operations Baseline when designated as such by FD 32 and included in Appendix C. Other types of project documentation shall be controlled as defined by the PO & I management. Non real-time increment operation changes shall be submitted on an ECR form. Forms and instructions are available on the POI Web page. Document procedures are defined in the JSC Standard 50010. Real-time, changes to the Payload Operations Baseline shall be submitted on a PIMS Operations Change Request (OCR). Real-time changes are defined as changes proposed after the ECR cut-off date established by the Increment POD.	Replaces references to POIF with more accurate references. Replaces POIF CM Matrix and the generic (and somewhat "fuzzy") terms "project baseline" and "implementation products" with proper references to the Payload Operations Baseline.
8.1.1 POCB	The POCB establishes the baseline and controls subsequent changes to ISS Payload Operations Integration requirements and documentation for increment preparation and increment operations. The scope of this forum includes NASA and International Partner/Participants (IP/P) and station-wide Payload Operations. This control board would disposition integration and execution of station wide payload operations plans and procedures. Products baselined by the POCB are incorporated into integrated ISS operations plans and processes	The POCB establishes the baseline and controls subsequent changes to Station-wide ISS Payload Operations Integration requirements and documentation for increment preparation and increment operations at the Partner level. The scope of this forum includes NASA and International Partner/Participants (IP/P) and station-wide Payload Operations. This control board dispositions integration and execution of station- wide payload operations plans and procedures. Products baselined by the POCB are incorporated into the plans and processes of the integrated ISS Payload Operations Baseline. The portion of the Payload Operations Baseline controlled by the POCB appears in Appendix C, Table C-1.	Clarifies that the POCB role is at the station-wide level. Relates the outputs of the POCB to the Payload Operations Baseline rather than the more generic "ISS operations plans…etc.

Section	From	To	Justification
8.1.2 NPOCB	The NPOCB reviews US partner Payload Operations products for consistency with operations requirements and resources and proper implementation of operational guidelines and constraints for operation of US and participant payloads. Certain products related to the U.S. segment will be excluded from NPOCB review. This includes ensuring incorporation of operational safety requirements and constraints and implementation of flight rules, regulations and constraints into increment plans.	The NPOCB reviews US partner Payload Operations products for consistency with operations requirements and resources and proper implementation of operational guidelines and constraints for operation of US payloads and participant payloads. This includes ensuring incorporation of operational safety requirements and constraints and implementation of flight rules, regulations and constraints into increment plans. Certain products related to the U.S. segment will be excluded from NPOCB review. (e.g. Products related to the PODF.)	Reorganized for clarity. The original sequence sounded like safety requirements and implementation of flight rules, regulations and constraints into increment plans were excluded from NPOCB review.
8.1.2 NPOCB 2nd Paragraph	The NPOCB is an implementation control board, which is subordinate to PCB. It establishes the baseline for and controls subsequent changes to payload operations and integration related products developed in support of US Partner and Participant Payload Operations Integration as delegated to it by the PCB.	The NPOCB is an implementation control board subordinate to PCB. It establishes the baseline for and controls subsequent changes to payload operations and integration related products developed in support of US Partner and Participant Payload Operations Integration as defined in Appendix C, Table C-2.	Provide reference to table C-2 as a more specific reference to the items for which the NPOCB is responsible. (Also simplifies the wording of the first sentence.)
8.1.3	Add to the end of the first sentence…	…CI's described in Appendix C, Table C-3.	Provides more specifics.
8.1.3 U.S. PODFCB	…. For U.S. Payloads, ASI, and Brazil.	… for U.S., ASI, and Brazilian payloads.	Clarity and correct grammar and capitalization.
8.1	**Payload Operations Integration Control Boards**	**Payload Operations Integration Control Authority**	Generalize the heading to include Higher level Control Boards and FD32 OPR Control Authority (defined elsewhere.)
8.1.4	(Does not currently exist)	**8.1.4 FD30 Offices of Primary Responsibility** The Payload Operations Baseline configuration items described in Appendix C, Table C-4 are products generated and controlled by the organizations that operate the POIC. (Operations Control Team, Data Management Team, Mission Planning Team, and the Operations Integration Team.) The configuration of these items shall be controlled at the OPR level and are the responsibility of the Team Leads as shown in Table C-4. FD32 requires no MSFC Institutional level CM for these items.	Defines FD 30 OPR (OC, DM, MP, and OI) Control Authority for the Payload Operations Baseline.

Section	From	To	Justification
8.1.5	(Does not currently exist.)	**8.1.5 Related Configuration Control Boards** The Payload Operations Baseline configuration items described in Appendix C, Table C-5, are CIs for which configuration management responsibility exists a higher level than either the MSFC Institutional CM or the Increment POD. The Increment POD bears the sole responsibility for a change in the Payload Operations Baseline that relates to one of these CIs. Because a change to one of these CIs represents a potential for the Payload Operations Baseline to diverge from ISS Program or system level direction and guidance, the Increment POD shall designate all approved OCRs affecting any of these CIs as "temporary OCRs" as described in the Payload Operations Handbook. The Increment POD shall develop an appropriate change request form as required by the configuration control authority listed in Table C-5 and process the change request as required by the control authority.	Defines the CM Plan for processing changes to configuration items that are part of the Payload Operations Baseline but do not fall within the MSFC configuration control authority. This is how the POD is able to change the Payload Operations Baseline (which IS in within the authority of MSFC organizations) even when the individual CIs are not.
8.2 Board	All occurrences of "POIF"	PO&I	Replace references to POIF.
8.3 1st Paragraph	The CCB chair or the alternate chair signature will sign all Payload Operations Configuration Control Board Directives (CCBDs).	The CCB chair or the alternate chair will sign all Payload Operations Configuration Control Board Directives (CCBDs).	Clarity.
8.3 2nd Paragraph	The chair may defer a proposed change to be dispositioned at a later CCB meeting. The CCB Chair reserves the right to process changes outside of the boards when necessary.	The chair may defer a proposed change to a later CCB meeting. The CCB Chair may process changes outside of the boards when necessary	Gives authority to the Board chair. (Deletes a useless phrase)
8.4 Change Priorities	For Payload Operations configuration item (CI) changes, change priorities shall be as specified by the Board Chair. Change priorities for contracted items shall be as defined in the contract.	For Payload Operations Baseline changes, change priorities shall be as specified by the Increment POD. For the individual configuration items that comprise the Payload Operations Baseline, change priorities shall be as specified by the configuration control authority for the CI. For contracted items, change priorities shall be as defined in the contract.	Clarifies the Increment POD as the authority for the Payload Operations Baseline. Provides for OPRs to set priorities for OPR-controlled items. (Provides parallel sentence structure.)

Section	From	To	Justification
8.5 1st Sentence	A non-increment operations change affecting the Payload Operations established baselines may be initiated	A non-increment operations change affecting the Payload Operations Baseline may be initiated…	Clarity
8.5 4th Sentence	An increment operations change affecting Payload Operations established CI's may be initiated by any operations organization by submittal of an Operations Change Request (OCR) as detailed in SSP 58311 POIC POH Vol. 1 Pre/Post Increment Operations and	. An increment operations change affecting Payload Operations Baseline CI's may be initiated by any operations organization by submittal of an Operations Change Request (OCR) as detailed in SSP 58311 POIC POH Vol. 2 Increment Operations	Uses Payload Operations Baseline for clarity. Corrects location of OCR details in the POH.
8.5.1 2nd Sentence	Refer to forms on the POIF CM web page…	Refer to forms on the POI CM web page…	Removes reference to POIF.
8.6 2nd Sent	The POIF web site will include	The POI web site will include	Removes POIF
8.6 2nd Paragraph	The CMO will be the focal point for the processing of all Payload Operations changes.	The CMO will be the focal point for the processing of all changes to CIs that compris e the Payload Operations Baseline, except those in Table C-4, U.S. Payload Operations Integration Center Configuration Items.	Clarifies CMO role and reserves payload operations changes for the Increment POD.
8.6 3rd Paragraph	Mandatory evaluators will take action to evaluate the change for subsequent Payload Operations CCB action.	Mandatory evaluators will evaluate the change for subsequent CCB action.	Clarification. There are several CCBs involved. The phrase "Payload Operations CCB" sounds too much like the POCB which is only one of the involved boards. (Also eliminates unnecessary words.)
9.0 Config Status Accounting	Configuration status accounting for Payload Operations Integration CI's will be accomplished as specified in MSFC MPG 8040.1 by the CMO using the MSFC CPTAS. Implementation and utilization of CPTAS shall be as specified in MSFC-MNL-1951. CM status reports shall be generated and distributed as required by Payload Operations Project Management. Reports that may be generated from data residing in CPTAS are listed in MSFC-MNL-1951.	Configuration status accounting for Payload Operations Baseline CI's in Tables C-1, C-2 and C-3 will be accomplished as specified in MSFC MPG 8040.1 by the CMO using the MSFC CPTAS. Implementation and utilization of CPTAS shall be as specified in MSFC-MNL-1951. CM status reports shall be generated and distributed as required by Payload Operations and Integraton Department management. Reports that may be generated from data residing in CPTAS are listed in MSFC-MNL-1951.	Incorporates the Payload Operations Baseline for clarity. Provides for the POH to describe Configuration Status Accounting for OPR controlled items. Provides for the appropriate control authority to do status accounting for items not under MSFC jurisdiction.

Section	From	To	Justification
		Configuration status accounting for Payload Operations Baseline CIs in Table C-4 shall be accomplished as specified in the Payload Operations Handbook. Configuration status accounting for Payload Operations Baseline CIs in Table C-5 shall be as required by the configuration control authority as listed.	
10.0 1st Sentence	Verification of the Payload Operations configuration items assures that all requirements and approved changes have been correctly translated into the Payload Operations CI.	Verification of the Payload Operations Baseline configuration items assures that all requirements and approved changes have been correctly translated.	Uses Payload Operations Baseline foe clarity and keeps the POD out of individual CI management.
10.0 2nd Sentence	Periodic verification is performed as required to support increment preparations when the progressive CI project baseline is established.	Periodic verification is performed as required to support increment preparations when the progressive Payload Operations Baseline is established.	Uses Payload Operations Baseline for clarity and keeps the POD out of "payload projects"
10.1	The POIF with CMO support…	The PO&I with CMO support…	Removes POIF
10.2	The Payload Operations Integration Function will perform Functional Configuration Audits and Physical Configuration Audits per the requirements of MIL-STD-973.	The PO&I will perform Functional Configuration Audits and Physical Configuration Audits. MIL-STD-973 provides some guidance for these audits, but the process shall be tailored to the Payload Operations Baseline.	We need to do both Functional and Physical Configuration Audits, and MIL-STD-973 can help us decide what we want to do, but let's temper this with some reality. We need to scrub this requirement carefully. I'm familiar with some of the requirements of MIL-STD-973, and I don't think we have enough people. I struggled with it in the Air Force with an organization of 15 people dedicated to configuration management.

Additional proposed changes			
8.1.2 para 2	POIC	PO&I (including the POIC)	Accuracy
8.1.3	The PODF is a component of the Operations Data File (ODF) which is the collection of the operations procedures and reference information required performing ISS Payload Operations. The US PODFCB is responsible for the implementation of policies and protocols defined by the Operations Data file Control Board…	The PODF as a component of the Operations Data File (ODF), is the collection of the operations procedures and reference information required for performing ISS payload operations. The US PODFCB is responsible for the implementation of policies and protocols defined by the Operations Data File Control Board…	Accuracy and clarity. Capitalizes "file" in the name of the board.
Append C as proposed.	3-40, 3-41, & 3-42 as written	Delete?	PODF is eliminating all but one appendix to the PODF. If this has taken place, we need to update the proposed definition of the Payload Operations Baseline accordingly. If it is in the works, let's not change it in this document at this time.
Universal	PODFCB	U.S. PODFCB	Accuracy